line becomes too wide in certain directions to be detected by resonance experiment. X-ray data show that in the single crystal all ions are parallel and two neighbouring copper ions are at a distance of about/Å, similar to that of copper tutton salt. Hence there should be a fair amount of isotropic exchange interaction between "similar" ions precessing about parallel axes in the magnetic field, and super-exchange through intervening atoms between two neighbouring copper atoms will also be appreciable The spin-spin interaction is probably responsible for the angular variation of the line width and the general narrowness of the resonance line is attributed to the strong isotropic exchange. The resonance spectrum of calcium copper acetate hexahy drate corresponding to $S = \frac{1}{2}$ is evidently fundamentally different from that of copper acetate monohydrate, in which the spectrum corresponds to $S=1$ arising from a strong direct exchange coupling between a dimeric Cu^{2+} complex. This is in complete agreement with the magnetic susceptibility and anisotropy measurements. Thus the presence of Ca^{2+} ion between two copper atoms in the former case as compared to the letter drastically changes the magnetic and e. p. r. behaviours.

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Comment on the results on ultraviolet absorption spectra of ortho -and meta-bromoanilines

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The ultraviolet absorption spectra of ortho- and meta-bromoaniline molecules in vapour phase have been reported recently by Tripathi (present author 1968) and Rama Rao (1968) independently. The experimental results of the two authors do not agree on some points. This communication aims at finding out the probable impurity which would account for the difference in published spectra by the two authors.

Rama Rao has measured a good number of sharp and discrete bands in o-bromoaniline, while Tripathi has reported only a few broad and diffuse bands in this isomer. The 0,0 bands determined by the two authors differ by 510 cm^{-1} in position and there is no common band reported. Though Rama Rao has reported only a few bands compared to Tripathi for m-bromoaniline, the 0, 0 band and other intense bands are common within a variation of ± 10 cm^{-1}. These considerations lead one to conclude that the o-bromoaniline sample used by one of the authors was contaminated.

The electronic spectra of isomeric fluoro-, chloro- and bromoanilines are expected to exhibit a close similarity. The order of the red shifts in the 0, 0 bands of the three isomers, relative to benzene or aniline is para > ortho > meta for fluoroanilines (Murthy *et al* 1965) and chloroanilines (Harnath *et al* 1957) and so it should be for isomeric bromoanilines. This supports the results of Tripathi. If Rama Rao's data be accepted, the order of the 0,0 band shifts in bromoaniline becomes $p > m > o$. Besides, the 0,0 band shifts in the ortho- and meta- isomers of most of the disubstituted benzenes are very close which is consistent with the data given by Tripathi but inconsistent with that reported by Rama Rao.

In order to identify the spectrum of o-bromoaniline reported by Rama Rao, with some probable impurity, the spectrogram was compared with that reported by Ginsburg and Matsen (1945) for aniline vapours and it was established that the two spectra coincide. The positions of the prominent bands also agree if error of measurement for some bands be taken as high as ± 20 cm^{-1}. The presence of aniline impurity is very probable in a sample of o-bromoaniline, which may decompose, when exposed to light.

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